

What is claimed is:

1. A method of dissipating heat in an array of circuit components comprising:
 - (a) providing a circuit board having a front and back face with a pattern of electrically conductive strips having a relatively high coefficient of thermal conductivity disposed on each of the front and back face of the board;
 - (b) disposing a plurality of said components in an array on one of the front and back faces of the board and connecting each of said components to the front and back pattern of conductors;
 - (c) applying a layer of tape having a relatively high coefficient of thermal conductivity to each of said front and back faces of the board; and,
 - (d) disposing a heat sink in contact with the tape on each of the front and back faces of the board.
2. The method defined in claim 1, wherein said step of disposing circuit components in an array includes disposing a plurality of light emitting diodes (LEDs).
3. The method defined in claim 2, wherein said step of disposing LEDs includes disposing same in equidistant arrangement with respect to said heat sink.
4. The method defined in claim 1, wherein said step of providing a circuit board includes arranging a pattern of electrical leads disposed on the front and back for conducting heat array from each of the circuit components.
5. The method defined in claim 1, wherein said step of providing a circuit board includes providing a relatively thin board formed of flexible material.

6. The method defined in claim 1, wherein said step of disposing a heat sink includes disposing a member having a finned surface.
7. The method defined in claim 1, wherein said step of applying a layer of tape includes applying a tape formed of polymeric film material coated with thermally conductive acrylic adhesive on opposite sides of the tape.
8. The method defined in claim 1, wherein said step of applying a layer of tape includes applying a tape having a thermal conductivity of about 0.4 Watts/meter-K as measured per ASTM D5470.
9. The method defined in claim 1, wherein said step of applying a tape includes applying a double-sided adhesive tape.
10. The method defined in claim 1, wherein said step of disposing a plurality of components includes soldering the leads of the components to said conductive strips.
11. The method defined in claim 1, wherein said step of providing a circuit board includes disposing a plurality of electrically and thermally conductive vias through the board.
12. The method defined in claim 1, wherein the step of disposing a plurality of components includes orienting the board at an angle of about 42° to the vertical.

13. In combination a circuit board with an array of circuit components comprising:
 - (a) a circuit board having a front and back face with a pattern of electrically conductive strips having a relatively high coefficient of thermal conductivity disposed on each of the front and back faces of the board;
 - (b) a plurality of said components disposed in an array of one of said front and back faces of the board with each of the components electrically connected to the conductive strips on the front and back faces;
 - (c) a layer of thermally conductive tape disposed over the conductive strips on each of the front and back faces of the board; and,
 - (d) a heat sink disposed against said layer of tape on each of said front and back faces of the board.
14. The combination defined in claim 13, wherein said tape is formed of polymeric film coated with thermally conductive acrylic adhesive on opposite sides of the tape.
15. The combination defined in claim 13, wherein said tape has a thermal conductivity of about 0.4 Watts/meter-K as measured per ASTM D5470.
16. The combination defined in claim 13, wherein said tape comprises a double-sided adhesive tape.
17. The combination defined in claim 13, wherein said circuit board includes a plurality of electrically and thermally conductive vias extending from the front face through the board to the back face.

18. The combination defined in claim 13, wherein said components include light-emitting diodes (LEDs).
19. The combination defined in claim 13, wherein said circuit board is vertically oriented.
20. The combination defined in claim 13, wherein said components are disposed in equidistant arrangement with respect to said heat sink.